

STRAIGHT POLARITY METAL CORED WIRE

Abstract of Disclosure

A core composition of a metal-cored wire comprising a combination of graphite and potassium compounds has been proven to stabilize the arc in a straight polarity welding configuration. In particular, adding a combination of graphite and potassium manganese titanate ($K_2 MnTiO_4$) and potassium sulfate ($K_2 SO_4$) in the preferred combination of graphite and potassium compounds from the range of about 0.3% to about 5.0% wt resulted in a greatly stabilized arc, reduced spatter and reduced warpage while maintaining high deposition rates of the DCEN welding process.

Figures

Figure 1: A line graph showing the relationship between the number of hours spent on a task and the number of errors made. The x-axis represents 'Hours' (0 to 10) and the y-axis represents 'Errors' (0 to 10). The data points are as follows:

| Hours | Errors |
|-------|--------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 |
| 8 | 8 |
| 9 | 9 |
| 10 | 10 |

The graph shows a positive linear relationship, indicating that as the number of hours spent on the task increases, the number of errors also increases proportionally.